

Examiner-Initiated Interview Summary	Application No. 09/954,872	Applicant(s) PIKE ET AL.	
	Examiner Lewis A. Bullock, Jr.	Art Unit 2195	

All Participants:

(1) Lewis A. Bullock, Jr.

(2) Kevin Canning.

Status of Application: Allowed

(3) Edihoon Lee.

(4) _____.

Date of Interview: 26 August 2005

Time: _____

Type of Interview:

- ☒ Telephonic
☐ Video Conference
☐ Personal (Copy given to: ☐ Applicant ☐ Applicant's representative)

Exhibit Shown or Demonstrated: ☐ Yes ☐ No

If Yes, provide a brief description:

Part I.

Rejection(s) discussed:

112 rejections, Claim language.

Claims discussed:

1,18, 27, 44 and 53-55

Prior art documents discussed:

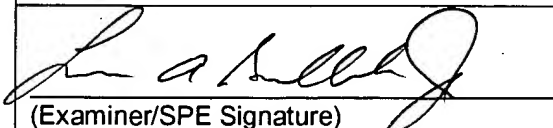
Part II.

SUBSTANCE OF INTERVIEW DESCRIBING THE GENERAL NATURE OF WHAT WAS DISCUSSED:

See Continuation Sheet

Part III.

- ☒ It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview directly resulted in the allowance of the application. The examiner will provide a written summary of the substance of the interview in the Notice of Allowability.
☐ It is not necessary for applicant to provide a separate record of the substance of the interview, since the interview did not result in resolution of all issues. A brief summary by the examiner appears in Part II above.


(Examiner/SPE Signature)

(Applicant/Applicant's Representative Signature – if appropriate)

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record
A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.

All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiner's responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicant's correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:

- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:

- 1) A brief description of the nature of any exhibit shown or any demonstration conducted,
- 2) an identification of the claims discussed,
- 3) an identification of the specific prior art discussed,
- 4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
- 5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
- 6) a general indication of any other pertinent matters discussed, and
- 7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicant's record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiner's version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, "Interview Record OK" on the paper recording the substance of the interview along with the date and the examiner's initials.

Continuation of Substance of Interview including description of the general nature of what was discussed: Applicant agreed to amend independent claims 27, 54 and 55 to claim similar language as detailed in claim 1, wherein the communications interface includes a command interpreter for generating a command for the instrument that is not recognized in the driver, and converting the command for the first control instrument to a command that is recognized in the driver that is specific to the driving hardware of the first control instrument independently of an interface bus standard type and an interface hardware driver type. Applicant agreed to cancel claim 53 and amend claims 18 and 44 to correct antecedent basis problems. Applicant also agreed to correct informalities in the specification, i.e. deleting reference notes, and to change the title to be more descriptive of the invention.

FAX TRANSMISSION**DATE:** August 26, 2005**PTO IDENTIFIER:** Application Number 09/954872
Patent Number**Inventor:** Melissa J. Pike *et al.*
Attention: Examiner Louis Bullock (Art Unit: 2194)**MESSAGE TO:** US Patent and Trademark Office**FAX NUMBER:** (571) 273-3759**FROM:** Kevin J. Canning/EHL**PHONE:** (617) 227-7400**Attorney Dkt. #:** MWS-065**PAGES (Including Cover Sheet):** 10**CONTENTS:**

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LAHIVE & COCKFIELD, LLP
28 State Street, Boston, Massachusetts 02109
Telephone: (617) 227-7400 Facsimile: (617) 742-4214

CLAIM AMENDMENTS FOR EXAMINER'S REVIEW

**Please amend claims 27, 54 and 55 as follows.
Please cancel claim 53.**

1. (previously presented) In an electronic device, a method for communicating with one or more control instruments, the method comprising:
 - providing a common communication interface for communicating with a first control instrument via a driver for driving hardware of the first control instrument, wherein the driver is specific to the hardware of the first control instrument, wherein the common communication interface includes a command interpreter for generating a command for the first control instrument that is not recognized in the driver;
 - receiving a first creation command;
 - establishing a first communication channel linking the command interpreter and the first control instrument in response to the first creation command; and
 - enabling the command interpreter to communicate with the first control instrument independently of an interface bus standard type and an interface hardware driver type by converting the command for the first control instrument generated from the command interpreter to a command for the first control instrument that is recognized in the driver.
2. (original) The method of claim 1, wherein receiving the first creation command comes from a user interface.
3. (original) The method of claim 1 further comprising:
 - establishing a second communication channel linking the command interpreter and a second control instrument in response to a second creation command from the user interface.
4. (original) The method of claim 3, wherein the first communication channel is established through a first communication interface of the first control instrument and the second communication channel is established through a second communication interface of the second control instrument, the first communication interface being of a first type and the second communication interface being of a second type.

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5. (original) The method of claim 4, wherein the first communication interface type and the second communication interface type include any of the supported interface types.

6. (original) The method of claim 5, wherein at least one of the first and second communication interface type is Virtual Instrumentation Software Architecture (VISA).

7. (previously presented) The method of claim 4, wherein:
the first control instrument having a communication interface is selected from a group of instrument interfaces having a first driver that includes the first type of communication interface;
and
the second control instrument having a communication interface is selected from a group of instrument interfaces having a second driver that includes the second type of communication interface.

8. (previously presented) The method of claim 3 further comprising:
establishing the first communication channel with the first control instrument in response to a first instantiation command according to a first syntax; and
establishing the second communication channel with the second control instrument in response to a second instantiation command according to the first syntax.

9. (previously presented) The method of claim 3 further comprising:
creating a first instrument object associated with the first communication channel in response to an interpreter command, wherein the first instrument object has properties;
creating a second instrument object associated with the second communication channel in response to the interpreter command, wherein the second instrument object has properties;
creating an object array including the first instrument object and the second instrument object as elements of the object array in response to an array creation command to the command interpreter, wherein the object array comprises properties; and
changing the properties of the first communication channel and the second communication channel in response to the interpreter command to change the properties of the object array.

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10. (previously presented) The method of claim 9 further comprising:
changing the configuration of the first communication channel in response to the interpreter command to change the properties of the first instrument object; and
changing the configuration of the second communication channel in response to the interpreter command to change the properties of the second instrument object.
11. (original) The method of claim 9, wherein the first instrument object has a read function, the function further comprising:
receiving data from the first communication channel in response to the interpreter command to execute the read function of the first instrument object.
12. (original) The method of claim 9, wherein the first instrument object has a write function, the function further comprising:
transmitting data through the first communication channel in response to the interpreter command to execute the write function of the first instrument object.
13. (original) The method of claim 9 further comprising:
displaying the configuration of the first communication channel in response to the interpreter command to display the properties of the first instrument object.
14. (original) The method of claim 1 further comprising:
detecting an available interface for the first communication channel with the first control instrument, wherein the first communication channel is established on a detected interface.
15. (original) The method of claim 1, wherein the common communication interface includes a command interpreter having an instrument engine operating in an array-based environment.
16. (original) The method of claim 15 further comprising generating timer events and event handling operations.
17. (original) The method of claim 15 further comprising restoring an object to the array-based environment.

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18. (original) The method of claim 15 further comprising buffering data between the interface hardware and the user interface.
19. (original) The method of claim 15 further comprising creating record files for data transfer.
20. (original) The method of claim 15 further comprising validating parameters.
21. (original) The method of claim 15 further comprising byte swapping.
22. (original) The method of claim 15 further comprising configuring object properties.
23. (original) The method of claim 15 further comprising translating error codes.
24. (original) The method of claim 15 further comprising data type casting.
25. (original) A method of claim 1, wherein the first communication channel is established by linking a compilation means and the first control instrument in response to the first creation command independent of an interface bus standard type and an interface hardware driver type.
26. (original) The method of claim 25, wherein the compilation means compiles a user created program to a stand-alone executable file when a command for compiling the program is received.
27. (currently amended) A system for communicating with one or more control instruments, the communication system comprising:
- a user interface adapted to receive a first creation command;
 - a common communication interface for communicating with a first control instrument via a driver for driving hardware of the first control instrument, wherein the driver is specific to the hardware of the first control instrument, wherein the common communication interface includes,

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a command interpreter adapted to receive the first creation command and generate a command for the first control instrument that is not recognized in the driver, and
an adaptor for converting the command for the first control instrument generated from the command interpreter to a command for the first control instrument that is recognized in the driver; and

a first communication channel linking the command interpreter and the first control instrument, wherein a communication is enabled independently of an interface bus standard type and an interface hardware driver type.

28. (previously presented) The system of claim 27, further comprising:

a second control instrument; and
a second communication channel linking the command interpreter and the second control instrument.

29. (previously presented) The system of claim 28, wherein the first communication channel is established through a first communication interface of the first control instrument and the second communication channel is established through a second communication interface of the second control instrument, the first communication interface being of a first type and the second communication interface being of a second type.

30. (previously presented) The system of claim 29, wherein the first communication interface type and the second communication interface type include any of the supported interface types.

31. (previously presented) The system of claim 30, wherein at least one of the first and second communication protocols is Virtual Instrumentation Software Architecture (VISA).

32. (previously presented) The system of claim 28, wherein:

the first control instrument having a communication interface is selected from a group of instrument interfaces supplied by a first driver that includes the first type of communication interface; and

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the second control instrument having a communication interface is selected from a group of instrument interfaces supplied by a second driver that includes the second type of communication interface.

33. (previously presented) The system of claim 32, wherein:

the first communication channel is established with the first control instrument in response to a first instantiation command according to a first syntax; and

the second communication channel is established with the second control instrument in response to a second instantiation command according to the first syntax.

34. (previously presented) The system of claim 28, further comprising:

a first configuration command according to a second syntax, for changing a configuration of the first communication channel with the first control instrument in response to the first configuration command; and

a second configuration command according to a second syntax, for changing a configuration of the second communication channel with the second control instrument in response to the second configuration command.

35. (previously presented) The system of claim 28, further comprising:

a first instrument object associated with the first communication channel in response to an instrument command;

a second instrument object associated with the second communication channel in response to the instrument command;

an object array including the first instrument object and the second instrument object as elements of the object array in response to an array creation command to the command interpreter; and

means for changing the properties of the first communication channel and the second communication channel in response to the interpreter command to change a property of the object array.

36. (previously presented) The system of claim 28, further comprising:

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a first instrument object associated with the first communication channel, wherein the first instrument object has properties; and
means for changing the configuration of the first communication channel in response to an interpreter command to change the properties of the first instrument object.

37. (previously presented) The system of claim 36, wherein the first instrument object has a read function to receive data from the first communication channel in response to the interpreter command to execute the read function of the first instrument object.

38. (previously presented) The system of claim 36, wherein the first instrument object has a write function to transmit data through the first communication channel in response to the interpreter command to execute the write function of the first instrument object.

39. (previously presented) The system of claim 37, further comprising:
means for displaying the configuration of the first communication channel in response to the interpreter command to display the properties of the first instrument object.

40. (previously presented) The system of claim 27, further comprising:
means for detecting an available interface for the first communication channel with the first control instrument, wherein the first communication channel is established on a detected interface.

41. (original) The system of claim 27 further comprising an instrument engine operating in an array-based environment.

42. (original) The system of claim 41, wherein the instrument engine is adapted to generate timer events and event handling operations.

43. (original) The system of claim 41, wherein the instrument engine is adapted to restore an object to the array-based environment.

44. (original) The system of claim 41, wherein the instrument engine is adapted to buffer data

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between the interface hardware and the user interface.

45. (original) The system of claim 41, wherein the instrument engine is adapted to create record files for data transfer.

46. (original) The system of claim 41, wherein the instrument engine is adapted to validate parameters.

47. (original) The system of claim 41, wherein the instrument engine is adapted to perform byte swapping operations.

48. (original) The system of claim 41, wherein the instrument engine adapted to configure object properties.

49. (original) The system of claim 41, wherein the instrument engine is adapted to translate error codes.

50. (original) The system of claim 41, wherein the instrument engine is adapted to perform data type casting operations.

51. (previously presented) The system of claim 27, wherein the first communication channel is established by linking a compilation means and the first control instrument in response to the first creation command independent of an interface bus standard type and an interface hardware driver type.

52. (original) The system of claim 51, wherein the compilation means compiles a user created program to a stand-alone executable file when a command for compiling the program is received.

53. (canceled)

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54. (currently amended) A system for communicating with a control instrument, comprising:

means for receiving a creation command from a user interface;

means for establishing a communication channel linking a command interpreter and the control instrument in response to the creation command, wherein the command interpreter generates a first command for communicating with the control instrument that is not specific to the control instrument, wherein a communication is enabled independently of an interface bus standard type and an interface hardware driver type;

means for creating an object array including a first instrument object and a second instrument object as elements of the object array in response to an array creation command to the command interpreter, wherein the object array comprises properties; and
means for converting the first command into a second command for communicating with the control instrument using the object array, wherein the second command is specific to the control instrument.

55. (currently amended) A computer program product, tangibly stored in a computer readable medium comprising instructions operable by a command interpreter in response to commands to the interpreter, the instructions causing the command interpreter to:

providing a common communication interface for communicating with a first control instrument via a driver for driving hardware of the first control instrument, wherein the driver is specific to the hardware of the first control instrument, wherein the common communication interface includes a command interpreter for generating a command for the first control instrument that is not recognized in the driver;

receive a first creation command from a user interface;

establish a first communication channel linking the command interpreter and a first control instrument in response to the first creation command; and

enabling the command interpreter to communicate with the first control instrument independently of an interface bus standard type and an interface hardware driver type by converting the command for the first control instrument generated from the command interpreter to a command for the first control instrument that is recognized in the driver.